

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 19, 1997. Claims 9, 15, 22, 25, 28 and 30-56 have been cancelled without prejudice. Claims 1-8, 10-14, 16-21, 23, 24, 26, 27 and 29 remain pending, having been amended in terms which more clearly define the present invention. Claims 1, 17, 24, 27 are independent. Favorable reconsideration is requested.

As required in the Office Action, the Abstract has been amended to be in proper form, and approval is respectfully requested.

In the Office Action, Claims 15, 22, 25, 28, 36 and 44 were rejected under 35 U.S.C. § 112. These claims have now been cancelled, rendering their rejections moot. However, Applicant respectfully points out that while standards may be revised over time, each revision is generally separately identified, so that reference to a particular standard existing at a particular time, e.g. the filing date of this application, is in fact completely definite and unchanging.

In the Office Action, Claims 1, 2, 3, 9, 17, 18, 20, 21, 27, 30, 38 and 46 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 4,989,163 (Kawamata et al.). Claims 13, 14 and 24 were rejected under 35 U.S.C. § 103 over Kawamata et al. in view of U.S. Patent No. 4,727,435 (Otani et al.). Claims 16, 23, 26, 29, 37, 45 and 50 were rejected over Kawamata et al. in view of U.S. Patent

No. 5,218,458 (Kochis et al.). Claims 3, 5, 6, 19 and others were rejected over Kawamata et al. in view of U.S. Patent No. 5,438,648 (Takaoka et al.). Claims 7, 8 and others were rejected over Kawamata et al. in view of U.S. Patent No. 4,962,421 (Murai). Claims 10-12 were rejected over Kawamata et al. in view of U.S. Patent No. 4,470,113 (Oura), and Claims 55 and 56 over Kawamata et al., Takaoka et al. and Oura.

As shown above, Claims 9, 15, 22, 25, 28 and 30-56 have been cancelled without prejudice. Applicant submits that amended independent Claims 1, 17, 24, 27, together with the remaining claims dependent thereon, are patentably distinct from the cited prior art for the following reasons.

The present invention as defined in amended Claim 1 is directed to an image processing device connected to a scanner unit for generating a first image signal by reading an original. The device comprises a bus to which the first image signal, a control unit for accessing the bus, a first bidirectional interface for receiving a second image signal from an external computer, and a second bidirectional interface for transmitting the first or second image signal to a printer unit. In accordance with an advantageous aspect of the present invention, the second bidirectional interface receives a first status signal related to the printer unit, and the first bidirectional interface transmits the first

status signal and a second status signal related to the scanner unit to the external computer.

As a result of this structure, the scanner is connected with the external computer via the first bidirectional interface and is connected with the printer via the second bidirectional interface. Accordingly, not only can the device transmit an image signal received from the external computer to the printer, but it can also transmit a first status signal received from the printer and a second status signal of the scanner to the external computer. By this configuration, the status of the printer is made known to the external computer even though the printer is not directly connected with the computer.

Kawamata et al. is directed to a photo printer having a host computer assist function and a method of controlling the same. As understood by Applicant, in Kawamata et al. the connection with the computer is realized via a bidirectional interface (SCSI), but the connection with the printer does not use a bidirectional interface. Specifically, Applicant has found no teaching or suggestion that the video interface 20 is bidirectional, or that a printer status signal is sent from the printer 3 through the interface 20, and thus Applicant respectfully traverses the statement in paragraph 7 of the Office Action that the video interface is bidirectional. Therefore, Kawamata et al. is unable to send a status signal from the printer to the host

computer if the printer is not directly connected with the computer, as now more clearly recited in amended Claim 1. Applicant has also been unable to find any teaching of the above-described feature in the other cited references, and therefore submits that amended Claim 1 is patentably distinct therefrom.

Amended Claim 17 also recites this feature, and accordingly is believed to be patentably distinct from the cited references for the same reasons as Claim 1.

The present invention as defined in amended Claim 24 is directed to an image processing device comprising a scanner for inputting an image signal, and an image processing circuit is provided for performing image processing necessary for copying on the image signal input from the scanner to provide a first processed image signal. In addition, a bidirectional interface is provided for transmitting the image signal input by the scanner to an external computer, the external computer performing image processing necessary for copying on the transmitted image signal to provide a second processed image signal, and the bidirectional interface receives the second processed image signal from the external computer. Finally, output means outputs the first processed image signal or the second processed image signal. The device therefore has a plurality of modes including first and second copying modes, the device using the scanner, the bidirectional interface and the output

means in the first copying mode to perform copying based on the image signal input by the scanner, and using the scanner, the image processing circuit and the output means in the second mode to perform copying based on the image signal input by the scanner.

By virtue of this configuration, in the first copying mode, the copying apparatus is able to use a host computer for necessary image processing. However, even when the connection between the copying apparatus and the host computer is off-line, the image processing necessary for copying can still be performed in the second copying mode.

As understood by Applicant, Kawamata et al. fails to teach or suggest a copying mode where image data is first transferred to an external computer for image processing and then is transferred back to the copying apparatus to be outputted. In particular, as understood by Applicant, in Kawamata et al. when data from the scanner is sent to the host computer 1 (ID=3), it is in a non-print process mode (Abstract, lines 10-14). Applicant has found no teaching that any such data is then transferred back for printing.

Applicant has found nothing in the other cited references that would remedy this deficiency of Kawamata et al. as a reference against amended Claim 24.

Moreover, amended independent Claim 27 is a method claim corresponding to amended apparatus Claim 24, and is

believed to be patentably distinct from the cited prior art for the same reasons.

In view of the above amendments and remarks, the Examiner is respectfully requested to withdraw the rejections and to allow the amended claims.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 758-2400. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,


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